Metalized asbestos - Carbonaceous materi... Deposite of copper.

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COMPLETE SPECIFICATION.

Waterproof and Fireproof Material for Roofing and other Purposes.

I CHARLES MELBOURNE WHITE of the firm of White and Woodington of 27 Southampton Buildings in the County of Middlesex Patent Agent do hereby declare the nature of said invention a communication to me from aboard by Alois Blank, Physician, of the City of St. Louis, State of Missouri, one of the United States of America, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof that is to say :—

The object of this invention is to produce a flexible waterproof and practically fireproof material for roofing, siding and analogous purposes ; the material being composed of asbestos with an intimately united coating or coatings of metal.

In making this new material asbestos paper or board, of any desired thickness is employed.

The asbestos material is first treated with a mixture of powdered plumbago, or other non-volatile carbonaceous matter, either in powdered form or suspended in a volatile liquid. The asbestos may be treated upon one or both sides.

Where the volatile vehicle has been used it is subsequently evaporated by heat, leaving the plumbago or other non-volatile carbonaceous material, intimately associated with the fibres of the asbestos. In carrying out this part of the process finely powdered plumbago is mixed with sufficient coal tar varnish to make a thin liquid which will permeate the pores of the asbestos, the coal tar varnish acting as a vehicle to carry forward the fine particles of the plumbago. The saturated asbestos is then subjected to heat until all the volatile matter has been thrown off. A thin coating of copper is next deposited by electrolysis upon the asbestos, the copper taking hold of the grains of plumbago, which rest in the interstices of the asbestos, and so becoming closely united with the latter. The material may then be immersed in a bath of melted metal, preferably tin, lead or zinc, or an alloy of any two or more of them. The molten metal being deposited on the copper, and thus a sheet of the same is attached to the copper coating. The material in either of the described forms is very flexible, and is practically a non-conductor of heat, and fireproof.

The preferred manners of preparing the article have been herein described, but I do not confine myself strictly thereto.

It will be understood that the asbestos material is not subject to injury by the heat from immersion in molten metal while such heat would destroy the integrity of any vegetable or animal fibre.

Having now particularly described and ascertained the nature of said invention, and in what manner the same is to be performed, I declare that what I claim is :—

1. The metalized asbestos material composed of a body of asbestos having its interstices or surface recesses supplied with carbonaceous material and a coat of copper adhering to the carbonaceous material, substantially as set forth.

2. The metalized asbestos material composed of a body of asbestos, having its interstices supplied with carbonaceous material, a coat of copper adhering to the carbonaceous material, and entering the interstices of the asbestos, and an outer sheet or layer of metal adhering to the copper, substantially as set forth.

Dated the 23rd day of August 1889.

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